

Amendments to the Claims

This listing of the claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1-7. (Cancelled)

8. (Currently Amended) A process for the preparation of multiple cross-linked hyaluronic acid (HA), which process comprises covalently cross-linking HA via two or more different functional groups, wherein said cross-linking is effected by contacting HA with one or more chemical cross-linking agents so as to form two or more different types of functional bonds between HA molecules, wherein said two or more different types of functional bonds are selected from the group consisting of ether, ester, sulfone, amine, imino, and amide bonds, and wherein an ether bond is formed using a ~~gluteraldehyde~~ glutaraldehyde cross-linking agent under acidic conditions.

9-36. (Cancelled)

37. (New) A process for the preparation of multiple cross-linked HA, which process comprises covalently cross-linking HA via two or more different functional groups, wherein said cross-linking is effected by contacting HA with one or more chemical cross-linking agents so as to form two or more different types of functional bonds between HA molecules, wherein said two or more different types of functional bonds are selected from the group consisting of ether, sulfone, amine, imino, and amide bonds.

38. (New) A process according to claim 37, wherein at least one functional bond is an ether bond formed using a cross-linking agent selected from the group consisting of bis epoxides and poly epoxides under alkaline conditions.

39. (New) A process according to claim 37, wherein the cross-linking agent is 1,2,3,4-diepoxybutane or 1,2,7,8-diepoxyoctane.

40. (New) A process for the preparation of multiple cross-linked HA, which process comprises covalently cross-linking HA via two or more different functional groups, wherein said cross-linking is effected by contacting HA with one or more chemical cross-linking agents so as to form two or more different types of functional bonds between HA molecules, wherein said two or more different types of functional bonds are selected from the group consisting of ester, sulfone, amine, imino, and amide bonds.

41. (New) A process according to claim 40, wherein at least one functional bond is an ester bond formed using a cross-linking agent selected from the group consisting of bis epoxides and poly epoxides under acidic conditions.

42. (New) A process according to claim 40, wherein the cross-linking agent is 1,2,3,4-diepoxybutane or 1,2,7,8-diepoxyoctane.

43. (New) A process for the preparation of multiple cross-linked HA, which process comprises covalently cross-linking HA via two or more different functional groups, wherein said cross-linking is effected by contacting HA with one or more chemical cross-linking agents so as to form two or more different types of functional bonds between HA molecules, wherein said two or more different types of functional bonds are selected from the group consisting of ether, ester, sulfone, amine, imino, and amide bonds, and wherein said process comprises contacting said HA with a first cross-linking agent so as to form a first type of functional bond, and contacting said HA with a further amount of said first cross-linking agent or with a second cross-linking agent so as to form a second type of functional bond.

44. (New) A process according to claim 43, wherein said HA is contacted with said first cross-linking agent under alkaline conditions, and wherein said HA is subsequently contacted with a further amount of said first cross-linking agent under acidic conditions.

45. (New) A process according to claim 44, wherein said first cross-linking agent is a bis epoxide or a poly epoxide.

46. (New) A process according to claim 44, wherein said first cross-linking agent is 1,2,3,4-diepoxbutane or 1,2,7,8-diepoxyoctane.

47. (New) A process according to claim 43, wherein said first cross-linking agent is a bis epoxide or a poly epoxide, and wherein said second cross-linking agent is glutaraldehyde.

48. (New) A process according to claim 43, wherein the cross-linking of each type of functional group is effected sequentially.

49. (New) A process according to claim 43, wherein the cross-linking of each type of functional group is effected simultaneously.